

Title (en)  
SPATIAL HIGH-RESOLUTION REPRESENTATION OF A STRUCTURE

Title (de)  
RÄUMLICH HOCHAUFGEÖSTES ABBILDEN EINER STRUKTUR

Title (fr)  
REPRODUCTION A HAUTE RESOLUTION SPATIALE D'UNE STRUCTURE

Publication  
**EP 2102631 B1 20130123 (DE)**

Application  
**EP 07856651 A 20071212**

Priority  
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Abstract (en)  
[origin: WO2008074429A1] For the spatial high-resolution representation of a structure in a specimen (2), a substance is selected from a group of substances that can be converted with a first electromagnetic signal (5) from a first state, in which they have a larger absorption cross-section for a second electromagnetic signal (3), into a second state, in which they have a smaller absorption cross-section for the second electromagnetic signal (5), or that can be converted with a first electromagnetic signal (5) into a first state, in which they have a larger absorption cross-section for a second electromagnetic signal (3), from a second state, in which they have a smaller absorption cross-section for the second electromagnetic signal (3). The structure in the specimen (2) is marked with said substance. By means of the first electromagnetic signal (5), a spatial distribution of a part of the substance in the first state is adjusted. At least one region, in which the substance is present in the first state, is spatially delimited. After the adjustment of the spatial distribution of the part of the substance in the first state by means of the first electromagnetic signal (5), the second electromagnetic signal (3) is applied to the specimen (2). Subsequently, at least one local temperature increase of the specimen (2) is detected resulting from the larger absorption cross-section of the substance in the first state when the second electromagnetic signal (3) is applied.

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